TENNESSEE VALLEY AUTHORITY
6N 38A Lookout Place
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DEC 20 1990

U.S. Nuclear Regulatory Commission
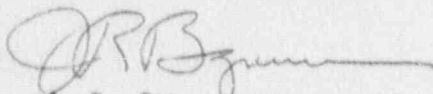ATTN: Document Control Desk
Washington, D.C. 20555

Dear Sir:

TVA - BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 1 - DOCKET NO. 50-259 - FACILITY
OPERATING LICENSE DPR-33 - REPORTABLE OCCURRENCE REPORT BFRO-50-259/90017

The enclosed report provides details concerning a procedural error that delayed
the performance of a fire watch tour in accordance with technical specification
requirements. This report is submitted in accordance with 10 CFR 50.73(a)(2)(i).

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. R. Bynum
Vice President
Nuclear Operations

Enclosures
cc (Enclosures):
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1E22

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Browns Ferry Plant, Unit 1	0|5|0|0|0| 2| 5| 9	1|0F| 0| 4

TITLE (4) A PROCEDURAL ERROR THAT DELAYED THE PERFORMANCE OF A FIRE WATCH
TOUR IN ACCORDANCE WITH TECHNICAL SPECIFICATION REQUIREMENTS

EVENT DAY (5)			LER NUMBER (6)		REPORT DATE (7)		OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
									Browns Ferry, Unit 2	0|5|0|0|0|2|6|0
1 |1	2| 2| 9| 0| 9| 0| 0	1	7	0	0	1 |2	2|0	9|0	Browns Ferry, Unit 3	0|5|0|0|0|2|9|6

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following)(11)			
POWER LEVEL (10)	0	0	0		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
			20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
			20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in
			20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Abstract below and in
			20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	Text, NRC Form 366A)
			20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER	
		AREA CODE
James E. Wallace, Jr., Compliance Licensing Engineer	2|0|5	7|2|9 - 2|0|5|3

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On November 22, 1990 at 1351 hours, a 500-Kilovolt (KV) relay line breaker began cycling from closed to open causing a voltage disturbance resulting in the security computer dropping offline, thereby locking vital area doors in the Control Bay Building. The security computer lockout delayed a compensatory hourly fire watch tour required by technical specifications (TS).

The root cause of this event was a procedural deficiency. The fire protection procedure did not contain a step requiring the shift operations supervisor (SOS) to contact the security shift supervisor whenever a security system problem has the potential to affect a technical specification requirement.

The immediate corrective actions were: (1) Operations personnel stabilized the 500-KV relay line, (2) Security reprogrammed the security computer system, and (3) the fire watch gained entry into the "A" 4-KV shutdown board room door to satisfy the TS requirement. The corrective action is to revise the procedure to add a step requiring the SOS to contact the security shift supervisor when a security system problem has the potential to affect a TS requirement. This procedural change should preclude a recurrence of this event.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
			SEQUENTIAL	REVISION		
		YEAR	NUMBER	NUMBER		
Browns Ferry Plant, Unit 1	0|5|0|0|0| 2| 5	9| 9| 0|--| 0| 1| 1| 7 |--| 0| 0	0| 2|0F| 0| 4			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

DESCRIPTION OF EVENT

On November 22, 1990 at 1351 hours, a 500-Kilovolt (KV) relay line [FK] breaker began cycling from closed to open causing a voltage disturbance. This caused the security Micro Access Controller (MAC) 540 computer [IA] to shutdown to protect its components from a voltage overload. This computer shutdown locked the control bay vital area doors.

At 1351 hours, a T/A load dispatcher requested the assistant shift operations supervisor (a utility-licensed individual) to close the affected BFN breaker in order to resolve the BFN line cycling problem. Although the breaker was closed, the 500-KV relay line relayed out a second time. The cycling stopped and the breaker was reset, thereby allowing the computer to be reprogrammed, returning the control bay locked door to an unlocked position.

At 1351 hours, when the 500-KV relay line relayed out and the Security MAC-540 computer shut itself down as designed, the computer automatically attempted several times to come back to normal operations, but the line voltage cycling and operation of the inhouse breakers caused the computer to lose power repeatedly. A security shift lieutenant was notified of the computer shutdown and departed for the Secondary Alarm Station (SAS). Upon arriving at the SAS, he instructed a SAS officer to disconnect the computer from its power source in order to force it into a degrade mode which would disengage the electronic lock feature, allowing entry into the affected doors. The computer was disconnected from its power source to force the computer into the degrade mode. Finally, at 1444 hours, the SAS power control board was switched from B to A and back to B power, and this switch rotation placed the computer into the degrade mode. For the next 20 minutes, the computer was programmed and returned to normal operations without further complications.

At approximately 1440 hours, the fire watch began his compensatory tour in the Control Bay Building. When he arrived at door 630 ('A' 4 KV shutdown board room), the door into the room was locked; therefore, he notified Site Security and the Shift Operation Supervisor (SOS). The SOS also contacted Security for assistance in opening the locked door. When the SOS contacted Security, he spoke to a security officer, not the security supervisor, thereby not providing adequate management attention to the potential of exceeding TS requirement. This contact was not required by the fire protection procedure (FPP-2). At approximately 1505 hours, a security officer arrived at door 630 and allowed the fire watch to begin his tour. However, this hourly inspection was approximately twenty minutes beyond the TS requirement.

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		YEAR | SEQUENTIAL NUMBER	REVISION NUMBER	
Browns Ferry Plant, Unit 1	0|5|0|0|0| 2| 5|9	9|0|--|0|1|7|--|0|0		0| 3|OF|0| 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

DESCRIPTION OF EVENT (Cont'd)

During this event, all three units were defueled and no fuel handling or operations over the spent fuel were performed. This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(b), an operation prohibited by the TSs.

CAUSE OF EVENT

The root cause of this event was procedural deficiency. Procedure FPP-2, "Fire Protection - Attachments," did not require the SOS to make contact with the security shift supervision to ensure that the appropriate level of management was aware of the potential consequences of exceeding a TS requirement so that appropriate corrective actions could be implemented. A contributing factor was that the on-shift security officer who received the SOS's call was busy trying to correct the computer problem and was not adequately informed of the full consequences of the delay.

ANALYSIS OF EVENT

A roving fire watch is required whenever a fire system is removed from service or when altering the design configuration of the fire protection system. An hourly fire watch tour is required by the BFN TSs.

The delay of the hourly fire watch tour did not significantly affect the operation of the plant due to the operational status of the plant at the time of this event. Additionally, Site Security has the following escalating steps available whenever a security computer fails, thereby unlocking doors and allowing access for a fire watch tour.

1. The computer can be placed in the degrade mode allowing access.

2. The vital area door card reader can be dismantled by security from any door allowing manual access.

3. The computer can be programmed to allow access by key cards.

Steps 1 and 2 degrade the system, so the preferred method is step 3, which was used in this event; however, the completion of step 3 took more time than normal due to the continuing operations activities of closing the 500-KV relay line breaker. This loss of computer was immediately detected by security personnel when the security computer came offline.

TVA is currently evaluating the reporting of three additional delayed fire watch tours. These other events affect both the establishing as well as the performing of fire watch tours. Therefore, TVA will report the result of the evaluation in the LERs for each event.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
			SEQUENTIAL	REVISION		
		YEAR	NUMBER	NUMBER		
Browns Ferry Plant, Unit 1	0 5 0 0 0 2 5	9 9 0	0 1 7	0 0	0 4 OF	0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

CORRECTIVE ACTION

At the time of the event, Operations personnel attempted to stabilize the 500-KV relay line by following the TVA load dispatcher's recommendations. Security personnel attempted to restart the MAC-540 computer system. The fire watch properly contacted the SOS to notify him of the need to have the door opened to allow him to perform his fire watch tour. The SOS contacted Security, but FPP-2 did not require the SOS to communicate directly with security shift supervision. The 500-KV line was stabilized. The computer was placed into operation and the fire watch was allowed access to the door to perform his tour.

As a result of this event, the affected procedure FPP-2 will be revised requiring the SOS to ensure that a security supervisory level personnel is contacted whenever a similar event occurs.

PREVIOUS SIMILAR EVENTS

Previous similar reported events were reviewed. Upon completion of the review, it was noted that although BFN had previous similar TS violations for not establishing appropriate fire watches, this is the first event recorded where the access for a fire watch tour was delayed due to an inoperable security access system.

COMMITMENT

Revise FPP-2 to require the SOS to contact a supervisory level personnel whenever an event similar to this occurs. This revision will be in place by January 29, 1991.

Energy Industry Identification System EIIS Codes are Identified in the Text as [XX]